

CLAIMS

What is claimed is:

1. A device monitoring system connected with a plurality of devices via a network, wherein:

some of the plurality of devices is provided with a device monitoring function for monitoring another device distinct from the monitoring device and notifying a third device distinct from said another device of changes in the state of said another device.

2. A device monitoring system connected with a plurality of devices via a network, wherein:

each of the plurality of devices is provided with a device monitoring function for monitoring another device distinct from the monitoring device and notifying a third device distinct from said another device of any abnormality of said another device.

3. A device monitoring system comprising a plurality of devices connected to a network and a device management server which manages the plurality of devices, wherein:

each of the plurality of devices is provided with a device monitoring function for monitoring another device distinct from the monitoring device and notifying at least one of the device management server and a third device distinct from said another device of changes in the state of said another device.

4. A device monitoring system comprising a plurality of devices connected to a network and a device management server which manages the plurality of devices, wherein: .

each of the plurality of devices is provided with a device monitoring function for monitoring another device distinct from the monitoring device and notifying at least one of the device management server and a third device distinct from said another device of any abnormality of said another device.

5. The device monitoring system according to claim 1, wherein all of the plurality of devices are provided with the device monitoring function.

6. The device monitoring system according to claim 1, wherein the device monitoring function comprises:

a device detecting section for recognizing an existence of other devices connected to the network;

a device management table creation section for creating a device management table for use in identifying a device to be monitored out of the recognized other devices;

a device management table storage section for storing the created device management table;

a status information detecting section for detecting status information about the monitoring device;

a status information transmission section for transmitting status information about the monitoring device and the another device to at least one of a third device and the device management server; and

a status information receiving section for receiving status information at least from any other device.

7. The device monitoring system according to claim 1, wherein the devices further comprise printers.

8. A device monitoring program used for the device monitoring system according to claim 1, wherein the device monitoring program makes a computer implement the device monitoring function of the device monitoring system.

9. A device monitoring program used for a device monitoring system, wherein the device monitoring program makes a computer implement a device monitoring function for monitoring another device distinct from the monitoring device and notifying a third device distinct from said another device of changes in the state of the another device.

10. A device monitoring program which makes a computer installed on each of a plurality of devices connected to a network execute as:

a device detecting section for recognizing an existence of the other devices equipped with the computer;

a device management table creation section for creating a device management table for use in identifying a device to be monitored out of the recognized other devices;

a device management table storage section for storing the created device management table;

a status information detecting section for detecting status information about the monitoring device;

a status information transmission section for transmitting status information about the monitoring device and the another device to other devices distinct from the monitoring device, the another device and the device management server; and

a status information receiving section for receiving status information at least from any other device.

11. A device monitoring method for a plurality of devices in a network, wherein the plurality of devices periodically monitor a state of each other and any device which finds any change in the state of a monitored device notifies at least one of another device and a device management server about the change.

12. A device monitoring method for a plurality of devices in a network, wherein the plurality of devices periodically monitor each other for abnormalities and any device which finds any abnormality of a monitored device notifies at least one of another device and a device management server about the abnormality.

13. The device monitoring method according to claim 11, wherein:

the notification includes log information about the monitored device.

14. The device monitoring method according to claim 11,
wherein:

each of the devices monitors at least one of a logically
close and physically close device.

15. The device monitoring method according to claim 11,
wherein:

each of the devices monitors a functionally similar
device.

16. The device monitoring method according to claim 11,
wherein:

each of the devices monitors devices which differ by at
least a certain time period of manufacture.

17. The device monitoring method according to claim 11,
wherein:

each of the devices determines a device to be monitored
according to a device management table created by a parent
device.

18. The device monitoring method according to claim 17,
wherein:

the device management table is created by the parent device
according to device management method properties acquired from
the device management server.

19. The device monitoring method according to claim 17, wherein:

the device which starts up first from among the plurality of devices in the network becomes the parent device.

20. The device monitoring method according to claim 17, wherein:

when the parent device experiences a shut down and stops operating, a device which detects shut down functions as a new parent device.

21. The device monitoring method according to claim 17, wherein:

when the parent device shuts down, the first device that receives a shut-down notice from the parent device functions as a new parent device.

22. The device monitoring method according to claim 17, wherein:

an XML protocol is used as a data description format for a communications section among the devices and a communications section between the devices and the device management server.

23. The device monitoring method according to claim 17, wherein printers comprise the devices.

24. A device comprising a device monitoring function for monitoring another device distinct from the monitoring device

and notifying a third device distinct from said another device of changes in a state of said another device.

25. A device comprising a device monitoring function for monitoring another device distinct from the monitoring device and notifying a third device distinct from said another device about any abnormality of said another device.

26. The device according to claim 24, wherein the device further comprises a printer.